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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/824,042

04/14/2004

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10/12/2006

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EXAMINER

MYINT, DENNIS Y

ART UNIT

PAPER NUMBER

2162

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/824,042	Applicant(s) MACKAY ET AL.	
	Examiner Dennis Myint	Art Unit 2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-29 have been examined.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim ~~is~~ ^{is} 26 rejected under 35 U.S.C. 102(e) as being anticipated by Hotti (hereinafter "Hotti") (U.S. Patent Application Publication Number 2002/0169745).

As per claim 26, Hotti is directed to a source control system server for tracking a current release of any given object on a plurality of databases (Figure 2A and Figure 2B) and teaches the limitations:

"a memory for storing a table and an instruction set" (Figure 9: Configuration Management Node; Nodes of Figure 9 are computers which comprise a memory which stores a plurality of tables and instruction sets);

"a processor in communication with the memory, wherein the processor executes the instruction set to perform the following steps" (Figure 9: Configuration Management Node; Nodes of Figure 9 are computers which comprise processors):

“create and store a table in the memory” (Figure 9: Configuration Management Node; Note that operating systems and applications created and store tables in memory);

“if an object is successfully released to a destination, then record data about the object in the table” (Hotti, Paragraph 0074, i.e., *log entries*; Paragraph 0076, i.e., *log entries*); and

“provide the table upon receiving a request from a user to view the table” (Paragraph 0074, i.e., *The system administrator can review the success of the upgrade by viewing the log entries using the configuration management application 610*).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Hotti in view of Sakamoto et al., (hereinafter "Sakamoto") (U.S. Patent Application Publication Number 2004/0024736) and further in view of Haller (hereinafter "Haller") (U.S. Patent Application Publication Number 2004/0024768).

As per claim 27, Hotti teaches the limitations:

"wherein the data is selected from the group consisting of an object name, a database name, a file type as an extension, a tag for the destination as determined by the source control system server, data identifying a user who prompted release" (Hotti, Paragraph 0074, i.e., *log entries*; Paragraph 0076, i.e., *log entries*; Paragraph 0074, i.e., *The system administrator can review the success of the upgrade by viewing the log entries using the configuration management application 610*; Note that in said log entries, object name, database name, file extension, tag for destination, users who prompted release are inherent).

Hotti does not explicitly teaches the limitations:

"a previous tag if a row for the object already existed" and "a time of the release".

Sakamoto teaches the limitation: "a time of the release" (Paragraph 0026, i.e., *are modified over the designated time period*).

Haller teaches the limitation:

"a previous tag if a row for the object already existed" (Paragraph 0049, i.e., *on all tags that have been read and buffered since the previous reading request was made*).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to add the feature of prescribing/designating a time period for database modifications, as taught by Sakamoto, and the feature of using tags for previous actions, as taught by Haller, to the server of Hotti, so that, in the resultant server, the data will be selected from the group consisting of an object name, a database name, a file type as an extension, a tag for the destination as determined by the source control system server, a previous tag if a row for the object already existed, data identifying a user who prompted release, and a time of the release. One would have been motivated to do so because designating a time period to execute a processing job and using tags to identify rows are well known in the art.

7. Claims 1, 4, 8, 11, 14, 18, 21, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hotti in view of Sprenger et al. (hereinafter "Sprenger") (U.S. Patent Number 6363388).

As per claim 1, Hotti is directed to a program product for use in a computer system that executes program steps recorded in a computer-readable medium to perform a program for updating database objects in a plurality of database servers in a

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distributed computing network (Paragraph 0001 and Paragraph 0029) and teaches the limitations:

“a recordable media for storing a program” (Paragraph 0081, i.e., *user a standardized operating system*; and Paragraph 00047, i.e., *a storage media comprising a stored, readable computer program*); and

“the program of computer-readable instructions executable by the computer system to perform steps” (Paragraph 0081, i.e., *user a standardized operating system* and Paragraph 00047, i.e., *a storage media comprising a stored, readable computer program*) including:

“receiving user specified database schema files for release to a list of corresponding database servers where modifications are to occur, wherein each schema file includes proposed database object structures” (Paragraph 0031, i.e., *to manage schemas of potentially large number of application database nodes*; Paragraph 0035, i.e., *distributing the new and modified schema and software configuration scripts*; Figure 5; Figure 6; Paragraph 0072, i.e., *for an new revision of the master database schema*; Paragraph 0073, i.e., *Figure 6 illustrates a program for upgrading the replica database schema and /or application configuration after the master database schema and/or application configuration has been updated according to Figure 5*);

“DDL commands” (Paragraph 0045, i.e., *Schema scripts can also include DML (Data Manipulating Language) or DDL (Data Definition Language) scripts, or any other data manipulation scripts*);

“comparing existing database object structures to the proposed database object structures to determine if the existing database object structures need to be modified” (Paragraph 0075, i.e. *The application replica tries to synchronize with the application master in step 704, but fails because the schema of the application replica database has been upgraded to a new revision level*; Note that “comparing” is inherent in the process of synchronizing);

“if the existing database object structures need to be modified, then generating and executing the appropriate commands to modify the existing database object structures” (Paragraph 0075, i.e., *The configuration management replica database node of the application master server subscribes the upgrade scripts of the new revision from the configuration management master by synchronizing itself with the master database node, step 705*);

“creating release notes that include documentation related to modifications of the database object structures” (Paragraph 0074, i.e., *log entries*; Paragraph 0076, i.e., *log entries*); and

“sending the release notes to at least one predefined address”(Paragraph 0074, i.e., *log entries written in step 606 are propagated to the schema management master*).

Hotti does not explicitly teach the limitations: “verifying that the schema files contain valid DLL commands” and “verifying that the user has proper permissions to modify the database object structures”.

Sprenger teaches the limitation: verifying validity (Column 29, Lines 22-26, i.e. *to verify validity of data*); and

“verifying that the user has proper permissions to modify the database object structures” (Column 11 Lines 14-28, i.e., *The Security Guard 136; and if a user has permission to perform a specific action*).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to add the features of verifying validity of data and verifying user permissions, as taught by Sprenger, to the program of Hotti, which teaches multiple schema files to modify databases, so that, the resultant program would comprise verifying that the schema files contain valid DLL commands and verifying that the user has proper permissions to modify the database object structures. One would have been motivated to do so because verifying validity of data and verifying access permissions are notoriously well known in the art.

As per claim 4, Hotti teaches the limitation:

“wherein the program further performs the step of verifying each modification was performed successfully” (Paragraph 0074, i.e., *The system administrator can review the success of the upgrade by viewing the log entries using the configuration management application 610*).

As per claim 8, Hotti teaches the limitation:

“wherein the program further performs the step of maintaining a history of modifications to the database object structures” (Paragraph 0074, i.e., *log entries*; Paragraph 0076, i.e., *log entries*).

Claim 11 is rejected on the same basis as claim 1.

Claim 14 is rejected on the same basis as claim 4.

Claim 18 is rejected on the same basis as claim 1.

Claim 21 is rejected on the same basis as claim 4.

Claim 28 is rejected on the same basis as claim 11.

Claim 29 is rejected on the same basis as claim 1.

8. Claims 2, 12, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hotti in view of Sprenger and further in view of Sakamoto.

As per claim 2, Hotti in view of Sprenger teaches the limitation: “wherein the program further performs the step of checking that each database server that has a structure modified has the modification” (Paragraph 0075, i.e. *The application replica tries to synchronize with the application master in step 704, but fails because the schema of the application replica database has been upgraded to a new revision level*; Note that “comparing” is inherent in the process of synchronizing).

Hotti in view of Sprenger does not explicitly teach the limitation: "during a prescribed release time".

Sakamoto teaches the limitation:

"during a prescribed release time" (Paragraph 0026, i.e., *are modified over the designated time period*).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to add the feature of prescribing/designating a time period for database modifications, as taught by Sakamoto, to the program of Hotti in view of Sprenger so that, in the resultant method, database modifications would occur during a prescribed release time. One would have been motivated to do so because designating a time period to execute a processing job is well know in the art.

Claim 12 is rejected on the same basis as claim 2.

Claim 19 is rejected on the same basis as claim 2.

9. Claims 3, 6, 13, 16, 20, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hotti in view of Sprenger and further in view of Tabellion et al., (hereinafter "Tabellion") (U.S. Patent Application Publication Number 2004/0098383).

As per claim 3, Hotti in view of Sprenger dose not explicitly teaches the limitation:

"wherein the program further performs the step of receiving a selection of database servers as locations where modifications are to occur" .

Tabellion teaches the limitation:

“wherein the program further performs the step of receiving a selection of database servers as locations where modifications are to occur” (Paragraph 0107, i.e., *To assign a server to the action set currently being modified, one or more of the list of servers is selected*).

At the time the invention was made, it would have been obvious to a person or ordinary skill in the art to add the feature of selection servers for modification, as taught by Tabellion, to the program of Hotti in view of Sprenger so that the resultant program would further perform the step of receiving a selection of database servers as locations where modifications are to occur. One would have been motivated to do so in order to *implement policy-based management* (Tabellion, Paragraph 0007).

As per claim 6 Hotti in view of Tabellion teaches the limitation:

“wherein the program further performs the step of verifying that the schema files meet predefined standards” (Hotti, Paragraph 0031, i.e., *to manage schemas of potentially large number of application database nodes* ;Tabellion, Paragraph 0121, i.e., *The filters may be evaluated dynamically to determine which storage object **meet the filter criteria at a specific filter criteria** at a specific instant of time, which may be useful in performing actions*).

Claim 13 is rejected on the same basis as claim 3.

Claim 16 is rejected on the same basis as claim 6.

Claim 20 is rejected on the same basis as claim 3.

Claim 23 is rejected on the same basis as claim 6.

10. Claims 5, 15, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hotti in view of Sprenger and further in view of Shahabi et al., (hereinafter "Shahabi") (U.S. Patent Application Publication Number 2003/0204499).

As per claim 5, Hotti in view of Sprenger does not explicitly teach the limitation:

"wherein the program further performs the steps of receiving a plurality of schema files and bundling the plurality of schema files into a module for simultaneous execution".

Shahabi teaches the limitation:

"“wherein the program further performs the steps of receiving a plurality of schema files and bundling the plurality of schema files into a module for simultaneous execution” (Paragraph 0165, i.e., *Now considering the problem of simultaneously evaluating a batch of COUNT queries*).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to add the feature of bundling queries (schema files) into a batch/module for simultaneous execution, as taught by Shahabi, to the program of Hotti in view of Sprenger so that the resultant program would comprise the steps of receiving a plurality of schema files and bundling the plurality of schema files into a module for simultaneous execution. One would have been motivated to do so in order to provide

efficient execution at a reasonable cost for single aggregate operation (Shahabi, Paragraph 0004).

Claim 15 is rejected on the same basis as claim 5.

Claim 22 is rejected on the same basis as claim 5.

11. Claims 7, 17, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hotti in view of Sprenger and further in view of Issacson et al., (hereinafter "Issacson") (U.S. Patent Application Publication Number 2004/0225669).

As per claim 7, Hotti in view of Sprenger does not explicitly teach the limitation:

"wherein the program further performs the step of parsing the schema files for sequential processing".

Issacson teaches the limitation:

"wherein the program further performs the step of parsing the schema files for sequential processing" (Paragraph 0046, i.e., *The schema 203 is processed by a schema processing application or a schema parser*).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to add the feature of parsing schema file for sequential processing, as taught by Issacson, to the program of Hotti in view of Sprenger so that the resultant program would comprise the step of parsing the schema files for sequential processing. One would have been motivated to do so because schema

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parsing is well known in the art (Issacson, Paragraph 0029, i.e. *Such parsers are readily known and available to one of ordinary skill in this art*).

Claim 17 is rejected on the same basis as claim 7.

As per claim 24, Official Note is taken that grouping files together in a directory having a name is notoriously well known in the art.

As per claim 25, Official Note is taken that a directory having a name is notoriously well known in the art.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hotti in view of Sprenger and further in view of Wiss et al., (hereinafter "Wiss") (U.S. Patent Application Publication Number 2004/0098425).

As per claim 9, Hotti in view of Sprenger teaches the limitation:

"wherein the step of verifying that the schema files contain valid DDL commands" (Hotti, Paragraph 0045, i.e., *Schema scripts can also include DML (Data Manipulating Language) or DDL (Data Definition Language) scripts, or any other data manipulation scripts; and Sprenger, Column 29, Lines 22-26, i.e. to verify validity of data.*)

Hotti in view of Sprenger does not explicitly teach the limitation: "enforcing a rule that the DDL commands are not modifying any database object structures other than the database object structures that the schema files specify".

Wiss teaches the limitation:

"enforcing a rule that the DDL commands are not modifying any database object structures other than the database object structures that the schema files specify"
(Paragraph 0101, i.e., *to verify that the block just read corresponds to the specified block id determined at step 602*).

At the time the invention was made, it would have been obvious to a person or ordinary skill in the art to add the feature of verifying and enforcing execution of code only to execute specified data, as taught by Wiss, to the program of Hotti in view of Sprenger so that the resultant program would comprise the step of enforcing a rule that the DDL commands are not modifying any database object structures other than the database object structures that the schema files specify. One would have been motivated to do so because verifying/enforcing proper execution of data is well known in the art.

13. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hotti in view of Sprenger and further in view of Cleraux et al., (hereinafter "Cleraux") (U.S. Patent Application Publication Number 2004/0088316).

As per claim 10, Hotti in view of Sprenger does not explicitly teach the limitation: "wherein the program further performs the step of accessing identification files for identifying the database servers where modifications are occurring, wherein the identification files contain release permission information for each database object structure that is to be modified".

Wiss teaches the limitation:

"wherein the program further performs the step of accessing identification files for identifying the database servers where modifications are occurring, wherein the identification files contain release permission information for each database object structure that is to be modified" (Paragraph 0052, i.e., The data can include, for each file, a UID/GID (User ID or Group ID), a size, one or more permissions, a type...).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to add the feature of accessing ID data which comprises access/release permission information, as taught by Cleraux, to the program of Hotti in view of Sprenger so that the resultant program would comprises the step of accessing identification files for identifying the database servers where modifications are occurring, wherein the identification files contain release permission information for each database object structure that is to be modified. One would have been motivated to do so because the use of IDs and access permissions are notoriously well known in the art.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows.

U.S. Patent Application Publication Number 2003/0236874) (Hotti)

Contact Information

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Myint whose telephone number is (571) 272-5629. The examiner can normally be reached on 8:30AM-5:30PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-5629.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dennis Myint

AU-2162

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